Message

From: Andrae, Bill/MKE [William.Andrae@jacobs.com]

Sent: 1/21/2021 4:50:17 PM

To: Giancarlo, Mary Beth [Giancarlo.Marybeth@epa.gov]; Ullinger, Heather [HUllinger@akronohio.gov]

CC: Klinkhamer, Christopher [Klinkhamer.Christopher@epa.gov]

Subject: RE: [External]FW: Follow-up with Ohio DNR on the Post-Sediment Removal Scenario Dam Stability Evaluation

Looking through my emails now.

Cheers!

Bill

Bill Andrae | Jacobs | Design Manager / Environmental Engineer M:+01.262.366.0968 | william.andrae@jacobs.com 1610 North 2nd Street Suite 201 | Milwaukee, WI 53212 | USA

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From: Giancarlo, Mary Beth < Giancarlo. Marybeth@epa.gov>

Sent: Thursday, January 21, 2021 9:08 AM

To: Ullinger, Heather < HUllinger@akronohio.gov>

Cc: Andrae, Bill/MKE <William.Andrae@jacobs.com>; Klinkhamer, Christopher <klinkhamer.christopher@epa.gov> **Subject:** RE: [External]FW: Follow-up with Ohio DNR on the Post-Sediment Removal Scenario Dam Stability Evaluation

Hey Heather – yes, the ODNR point of contact is Doug Evans.

All of the documentation we have regarding the dam should be on OneDrive. We didn't coordinate with Doug too much, but I'll take a quick look through my e-mails to see if there are any pertinent conversations we had with him that you weren't copied on. **Bill** – can you do that as well? Thanks!

-MB

From: Ullinger, Heather < HUllinger@akronohio.gov>

Sent: Thursday, January 21, 2021 8:52 AM

To: Giancarlo, Mary Beth < Giancarlo. Marybeth@epa.gov>

Subject: RE: [External]FW: Follow-up with Ohio DNR on the Post-Sediment Removal Scenario Dam Stability Evaluation

Hi Mary Beth,

Our dam removal design team wants to set up an initial meeting with ODNR to revisit their concerns. Do you have any more emails from them? The one below was a good summary.

Also, who do you think I should reach out to? Would it be Doug Evans?

Thanks as always

Heather L. Ullinger, P.E. Akron Engineering Bureau Cell 330-256-1246 From: Giancarlo, Mary Beth [mailto:Giancarlo.Marybeth@epa.gov]

Sent: Wednesday, May 13, 2020 1:39 PM

To: Ullinger, Heather < HUllinger@akronohio.gov >

Subject: [External]FW: Follow-up with Ohio DNR on the Post-Sediment Removal Scenario Dam Stability Evaluation

Hey Heather – wanted to share everything we got from Doug with you. As you will see, we need to pay ODNR for the full reports. We are working on this – it sounds silly but we don't have payment of fees in our scope of work, so we can't pay for that right now. We are amending on scope right now for other reasons so we will include fee payments, but that' probably a couple of months before that gets final approval.

-MB

From: doug.evans@dnr.state.oh.us <doug.evans@dnr.state.oh.us>

Sent: Monday, May 11, 2020 10:29 AM

To: Giancarlo, Mary Beth < Giancarlo. Marybeth@epa.gov>

Cc: Andrae, Bill/MKE < William.Andrae@jacobs.com >; Reif, Marty/WDC (Marty.Reif@jacobs.com)

< Marty.Reif@jacobs.com >; Skwarski, Alison/DET < Alison.Skwarski@jacobs.com >; Mia.Kannik@dnr.state.oh.us

Subject: Re: Follow-up with Ohio DNR on the Post-Sediment Removal Scenario Dam Stability Evaluation

Hi Mary Beth,

I was finally able to obtain the archive records. There are 4 different reports (see attached covers):

- Engineering Studies and Design of Remedial Measures, Jan 1981
- Summary Discussion of Stability Analyses, Sept 1983
- Additional Stability Analyses For Condition After Completion of Phase II, Oct 1983
- Geotechnical Investigation to Assess Rock Strength, Aug 1984

The 1980's calculations for the rehab of the dam show that the factor of safety against sliding is low.

In addition, the calculated factor of safety safety relies on the elevation of silt in front of the dam, and is 1.4 at normal pool, 1.18 during the 100 year storm, and 1.0 at 27% of the PMF (Probable Maximum Flood).

Unfortunately, the silt elevation is unspecified in the documentation. It is referenced as follows in the 10/1983 report; "the silt level shown upstream of gallery I on the Wisewell, Inc. drawing dated Oct. 20, 21, and 22, 1980." The Aug 1984 report collected additional rock samples, completed shear testing on the concerning bedding planes of the shale/silt, but provided little assurance on the low factor of safety.

Based on the 1981 report, the silt level relied upon in the calculations appears to be about 30 feet below crest of the spillway (believed to be about elevation 870 feet). See the 1981 Graphic attachment.

If you do not have copies of these reports for the designers we have a service provider that will make copies for a fee. Please let me know if you would like copies.

Thanks, Doug

From: Giancarlo, Mary Beth < Giancarlo. Marybeth@epa.gov >

Sent: Wednesday, May 6, 2020 1:01 PM

To: Evans, Doug <doug.evans@dnr.state.oh.us>

Cc: Andrae, Bill/MKE < William. Andrae@jacobs.com >; Reif, Marty/WDC (Marty.Reif@jacobs.com)

<<u>Marty.Reif@jacobs.com</u>>; Skwarski, Alison/DET <<u>Alison.Skwarski@jacobs.com</u>>

Subject: RE: Follow-up with Ohio DNR on the Post-Sediment Removal Scenario Dam Stability Evaluation

Hi Doug – I'm just checking in. I'm assuming that when you went into the office last Wed that the documents were not delivered, is that correct?

Given the COVID-19 situation, I understand that it could be very hard to get your hands on this information. So, we are thinking that to move ahead with the preliminary design that we will make an assumption about the dam stability post sediment removal and then adjust as necessary during the pre-final design which will most likely be in the late summer timeframe. Hopefully things will be opening back up by then.

Thanks.

-Mary Beth

From: doug.evans@dnr.state.oh.us <doug.evans@dnr.state.oh.us>

Sent: Monday, April 27, 2020 7:21 AM

To: Giancarlo, Mary Beth < Giancarlo. Marybeth@epa.gov>

Cc: Andrae, Bill/MKE <William.Andrae@jacobs.com>; Reif, Marty/WDC (Marty.Reif@jacobs.com)

<Marty.Reif@jacobs.com>; Skwarski, Alison/DET <Alison.Skwarski@jacobs.com>

Subject: Re: Follow-up with Ohio DNR on the Post-Sediment Removal Scenario Dam Stability Evaluation

Hi All,

Just letting you know I am working on obtaining this information. We are working remotely and, due to its age, the requested information is stored in our archives. The information has been requested, for the second time, and unfortunately I have not received confirmation yet. I will be in my office briefly on Wednesday and hopefully The documents will have been delivered and I will be back in touch.

Thanks, Doug

From: Giancarlo, Mary Beth < Giancarlo. Marybeth@epa.gov >

Sent: Wednesday, April 22, 2020 11:20 AM **To:** Evans, Doug <doug.evans@dnr.state.oh.us>

Cc: Andrae, Bill/MKE <William.Andrae@jacobs.com>; Reif, Marty/WDC (Marty.Reif@jacobs.com)

<Marty.Reif@jacobs.com>; Skwarski, Alison/DET <Alison.Skwarski@jacobs.com>

Subject: RE: Follow-up with Ohio DNR on the Post-Sediment Removal Scenario Dam Stability Evaluation

Hi Doug – thanks again for participating in the March 19 Gorge Dam pre-design workshop. We do have one action item assigned to you – please see e-mail from the sediment removal design contractor below. Any info you can provide will be greatly appreciated. If the files are too large to e-mail, we can give you access to the project OneDrive and you can post them there.

Thanks!

-Mary Beth



United States Environmental Protection Agency

Mary Beth Giancarlo

giancarlo.marybeth@epa.gov 312-886-2253

From: Andrae, Bill/MKE <William.Andrae@jacobs.com>

Sent: Wednesday, April 22, 2020 9:29 AM

To: Giancarlo, Mary Beth < Giancarlo. Marybeth@epa.gov>

Cc: Reif, Marty/WDC < <u>Marty.Reif@jacobs.com</u>>; Skwarski, Alison/DET < <u>Alison.Skwarski@jacobs.com</u>> **Subject:** Follow-up with Ohio DNR on the Post-Sediment Removal Scenario Dam Stability Evaluation

Hi Mary Beth – Just checking in to find out if you have heard back yet from Doug Evans/ODNR? At the Gorge Dam Workshop on March 19th he expressed a concern regarding the dams stability as a result of the sediment removal from the dam pool and immediately behind the dam. Doug indicated that part of the permitting process for dam removal that the dam stability needed to be evaluated for the post-sediment removal scenario and he thought the original or dam modification (1986) stability calculations for the dam might be in the DNR files. Has he had a chance to check the ODNR structure files?

Cheers!

Bill

Bill Andrae | Jacobs | Design Manager / Environmental Engineer O:+01.414.847.0341 | M:+01.262.366.0968 | william.andrae@jacobs.com 1610 North 2nd Street Suite 201 | Milwaukee, WI 53212 | USA



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